REMARKS

Amendments to Claims

Claim 1 is amended to more precisely define the subject matter for which protection is sought in terms that will avoid misunderstanding certain terms previously presented in the claim. Specifically, the claims previously recited a first feature substance "distributed substantially uniformly within the volume of the value document substrate". The word "substance" has been added in combination with the term "volume" to denote that the feature substance, as fully described in the original application and shown in the drawings, is uniformly distributed within both the substance and volume of the value document substrate. The scope of the claims is unchanged since the original claim language originally intended that the feature substance be distributed substantially uniformly within both the substance and the volume of the value document substrate, as will be readily evident to the person skilled in the art reviewing the original written description and drawings.

Claims 21, 22, 25 and 26 are amended to avoid redundancy and to better define the subject matter claimed, while claim 34 is amended on the basis of paragraph **0028** of the written description.

Amendments to Specification

The specification has been amended to provide clear antecedent basis for the amended terms of the claims.

Rejection of Claim 1 – 35 USC §103(a)

Applicant submits that examiner has failed to establish a *prima facie* case of obviousness in rejecting claim 1 as reciting subject matter regarded to be obvious to a person skilled in the art in view of the combined teachings of Soules (U.S. 5,259,907) and Weitzen (U.S. 4,455,039).

The examiner contends that Soules discloses a feature substance distributed substantially uniformly within the volume of the value document, whereas in fact Soules merely describes a layer having a barcode imprinted thereon embedded between two other layers of a playing card. The embedded layer (72) is made of aluminum and is opaque so as

to permit machine viewing of the embedded layer and the barcode (78) coded thereon through the outer card layer.

The interpretation of the aluminum layer (72) of Soules as being "distributed substantially uniformly within the volume of the value document substrate" constitutes a stretch of imagination that exceeds the limits of claim interpretation permitted by the examiner that enables the examiner to interpret all elements of a claim in accordance with their broadest meaning. A single layer of aluminum between two outer layers cannot constitute a substance that is distributed uniformly within a volume of a document such as a playing card formed of the 3 layers under any reasonable interpretation.

To avoid the possibility of such extreme interpretation, Applicant has amended claim 1 to recite that the feature substance is distributed substantially uniformly within the substance and volume of the value document substrate, thereby establishing without ambiguity the original intended meaning of the feature substance that is distributed substantially uniformly within the body of the value document substrate.

The examiner correctly points out that Soules fails to disclose a second feature substance in the playing card, which inherently prevents an observer (or two groups of observers) from checking both authenticity of the card using a characteristic property of one or both luminescent feature substances, as well as the value of the card using a characteristic property of the two different luminescent feature substances or a coding formed by the second feature substance. Thus, observation of the authenticity and value of the document by two groups of observers who are enabled to observe different characteristic properties and codings of the document at different security levels is not possible with the system of Soules.

The examiner attempts to establish obviousness of claim 1 by relying on the disclosure of the Weitzen patent in combination with Soules, where Witzen shows a single feature substance (not a "second" feature substance) on a security document in the form a luminescent substance that enables value recognition of the document. Witzen of couse discloses a single feature substance that is electroluminescent that may be used for virtually any purpose, including determining value or authenticity of a document. The important consideration is that Weitzen, likes Soules, only discloses a single feature substance in a security document and neither Soules nor Weitzen remotely suggest using two different luminescent feature substances in or on a single value document for enabling checking of the

authenticity of a document using spectral characteristics of the luminescent materials and the value of the document using a coding (or spectral characteristics) of the second luminescent feature substance, wherein the first feature substance furthermore comprises a mixture of luminescent substances having a complex spectral distribution that by its spectral distribution provides a coding.

More specifically, Weitzen does not provide a first feature substance comprising a luminescent material that possess a complex spectral distribution that in and of itself provides a coding for the document. The meaning of a luminescent material having a complex spectral distribution is explained in the written description as a material possessing emission characteristics in the form of emission and/or excitation spectra (page 3, paragraph [0014]). Also, see paragraphs 0015-0018. In accordance with the teachings of Weitzen, the coding is established by a printed pattern of the luminescent material and the patent is entirely silent with regard to using the characteristic spectra of the luminescent material as a coding.

It is thus clear that neither Soules nor Weitzen, whether considered individually or , as the examiner suggests, in combination with each other, remotely suggests a value document having (i) a first feature substance distributed substantially uniformly within the substance and volume of value document substrate and which comprises a mixture of luminescent substances having a complex spectral distribution that provides by its spectral characteristics a coding; and (ii) a second luminescent feature substance that is provided on the document that also has spectral characteristics and constitutes a coding as well. Thus, Soules with Weitzen could not provide two levels of security for the same document, whereby a first group can observe certain spectral characteristics of the luminescent material to see if a coding revealing authenticity of the document is presented by the spectral characteristics at a higher security level, while a second group can observe a coding on the document provided by the second luminescent feature substance to determine value of the document at a lower security level. Alternatively, the spectral characteristics of both feature substances can be viewed by the first group to determine authenticity of the document, while the second group would only view the code and/or spectral characteristics of the second feature substance to determine value of the document.

Applicant submits that the failure of the cited prior art Soules and Weitzen to show, teach or suggest the claimed subject matter evidences a lack of obviousness of the subject

matter of claim 1, requiring withdrawal of the rejection of the claim, which is respectfully requested. Moreover, the examiner has not informed applicant in clear terms of the manner in which Soules could be modified in accordance with the teachings of Weitzen to produce the claimed structure of claim 1, further reinforcing applicant's position that claim 1 is both novel and unobvious.

Claims 6, 7, 10, 11 and 30 are patentable at least on the basis of the patentability of claim 1, from which they depend.

With regard to method claim 15 and 16, applicant submits that these claims are patentable for the same reasons expressed above with regard to claim 1. Withdrawal of the rejection of claims 15 and 16 is appropriate and the same is respectfully requested.

With regard to claim 21, in addition to the arguments advanced above with regard to the patentability of claims 1 and 15, Soules and Wietzen considered individually or in combination with each other fail to disclose, teach of suggest the method expressed in the claims involving checking or processing a value document made in accordance with claim 1 by checking the authenticity of the value document using one spectral characteristic property of either or both the first luminescent feature substance and the second luminescent feature substance, and checking the value of the document by using the coding formed by the luminescence substance of the second feature substance. There is absolutely no basis established by the examiner that Soules and Weitzen remotely disclose the method recited in claim 21.

The examiner is invited to review the written description describing the difference in checking a value document for authenticity vs. value using two different feature substances.

Withdrawal of the rejection of claims 21-23 is warranted and the same is respectfully requested.

Claims 3-5, 13-14, 18-20, 24-29 and 32-34 are patentable at least on the basis of the patentability of claims 1, 15 and 21 for the reasons given previously with regard to the patentability of the latter.

With the regard to claim 3, the third feature substance is recited in combination with the first and second feature substance having the characteristics identified in claim 1. Such

characteristics are not evident from Kaule, which the examiner regards as teaching the concept of providing a third feature substance on a value document substrate which is different from a first and second feature substance.

While Kaule, in column 3, lines 14-23 describes a feature substance that may be incorporated in a printing ink or added to the paper pulp of the document, there is no teaching within Kaule of combining three feature substances together having the properties recited in claim 3 wherein the luminescent feature substance possesses a complex spectral distribution that provides by its spectral characteristics a coding. Kaule further flails to disclose dispersing the luminescent feature substance uniformly within the volume and substance of the value document.

Accordingly, claim 3 recites subject matter patentable independently from claim 1, thereby warranting withdrawal of the rejection of claim 3, which is respectfully requested.

In summary, the prior art of record fails to establish obviousness of the subject matter recited in the rejected claims in that it fails to disclose, teach or suggest a value document containing at least two luminescent feature substances that enable checking of the authenticity of the document using highly secure spectral characteristics of both feature substances, one of which is luminescent substances having a complex spectral distribution that by its spectral characteristics provides a coding, and checking the value of the document by using a less secure coding on the document formed by one of the luminescent feature substances without regard to spectral distribution of the second feature substance. The distribution of the first luminescent feature substance having a complex spectral distribution uniformly in the volume and substance of the substrate further adds a novel of unobvious aspect to the combination of elements constituting the value document recited in claim 1 and methods for checking a value document according to claims 15 and 21. Patentability of the remaining claims is established on the same grounds.

Withdrawal of the rejection and passage of the application to issue is respectfully requested.

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